

adequate or appropriate safety standards for the Model 568F propeller because it is constructed using composite material. Therefore, the Administrator proposes special conditions under the provisions of § 21.16 of the FAR's to establish a level of safety equivalent to that established in part 35.

Special conditions, as appropriate, are issued in accordance with § 11.49 of the FAR's after public notice and opportunity for comment, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101(b)(2).

#### *Novel or Unusual Design Features*

The Hamilton Standard Model 568F propeller incorporates propeller blades constructed using composite material. This material has fibers that are woven or aligned in specific directions to give the material directional strength properties. These properties depend on the type of fiber, the orientation and concentration of fiber, and matrix material. Composite materials could exhibit multiple modes of failure. Propellers constructed of composite material must demonstrate airworthiness when considering these novel design features.

The requirements of part 35 of the FAR's were established to address the airworthiness considerations associated with wood and metal propellers used primarily on reciprocating engines. Propeller blades of this type are generally thicker than composite blades, and have demonstrated good service experience following a bird strike. Propeller blades constructed using composite material are generally thinner when used on turbine engines, and are typically installed on high performance aircraft. High performance aircraft generally fly at high airspeeds with correspondingly high impact forces associated with a bird strike. Thus, composite propellers must demonstrate propeller integrity following a bird strike.

In addition, part 35 of the FAR's do not currently require a demonstration of propeller integrity following a lightning strike. No safety considerations arise from lightning strikes on propellers constructed of metal because the electrical current is safely conducted through the metal blade without damage to the propeller. Fixed pitched, wood propellers are generally used on engines installed on small, general aviation aircraft that typically do not encounter fling conditions conducive to lightning strikes. Composite propeller blades, however, may be used on turbine engines and high performance aircraft which have an increased risk of

lightning strikes. Composite blades may not safely conduct or dissipate the electrical current from a lightning strike. Severe damage can result if the propellers are not properly protected. Therefore, composite blades must demonstrate propeller integrity following a lightning strike. Information on testing for lightning protection is set out in SAE Report AE4L, entitled, "Lightning Test Waveforms and Techniques for Aerospace Vehicles and Hardware," dated June 20, 1978.

Lastly, the current certification requirements address fatigue evaluation only of metal propeller blades or hubs, and those metal components of non-metallic blade assemblies. Allowable design stress limits for composite blades must consider the deteriorating effects of the environment and in-service use, particularly those effects from temperature, moisture, erosion and chemical attack. Composite blades also present new and different considerations for retention of the blades in the propeller hub.

#### *Conclusion*

This action affects only the Hamilton Standard Model 568F propeller and future propeller models within this series. It is not a rule of general application, and it affects only the manufacturer who applied to the FAA for approval of this propeller model.

#### **List of Subjects in 14 CFR Part 35**

Air Transportation, Aircraft, Aviation safety, Safety.

The authority citation for these special conditions continues to read as follows:

**Authority:** 49 U.S.C. App. 1354(a), 1421, 1423; 49 U.S.C. 106(g).

#### **The Proposed Special Conditions**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration (FAA) proposes the following Special Conditions for the Hamilton Standard Model 568F Propeller.

(a) For purposes of these special conditions, a hazardous condition is considered to exist for each of the following conditions:

- (1) Loss of the propeller blade, or a major portion of a blade.
- (2) Overspeed of the propellers.
- (3) Unintended movement of the blade below the established minimum inflight blade angle, or to an angle that results in excessive drag.
- (4) The inability to feather the propeller when necessary.

(b) In addition to the requirements of Federal Aviation Regulation part 35, the following must be shown:

#### **(1) BIRD STRIKE**

For propeller of composite construction it must be shown that:

The propeller can withstand a 4 pound bird strike at the blade's critical radial location when operating at takeoff RPM and liftoff (V<sub>r</sub>) speed of a typical aircraft, without giving rise to a hazardous condition and while maintaining the capability to be feathered.

#### **(2) LIGHTNING STRIKE**

A lightning strike a propeller of a composite construction shall not result in a hazardous condition. The propeller shall be capable of continued safe operation.

#### **(3) FATIGUE EVALUATION**

A fatigue evaluation must be provided and the fatigue limits determined for each propeller hub, blade, and each primary load carrying component of the propeller. The fatigue evaluation must consider all known and reasonable foreseeable vibration and cyclic load patterns that may be encountered in service. The fatigue limits must account for the effects of in-service deterioration, such as impact damage, nicks, grooves, galling, or bearing wear; for variations in production material properties; for environmental effects such as temperature, moisture, erosion, chemical attack, etc., that cause deterioration. Issued in Burlington, Massachusetts, on January 12, 1995.

**Jay Pardee,**

*Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 95-1543 Filed 1-19-95; 8:45 am]

BILLING CODE 4910-13-M

#### **14 CFR Part 39**

[Docket No. 94-CE-26-AD]

#### **Airworthiness Directives; SOCATA Groupe AEROSPATIALE TBM 700 Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This notice proposes to adopt a new airworthiness directive (AD) that would apply to certain SOCATA Groupe AEROSPATIALE (Socata) TBM 700 airplanes. The proposed action would require installing pneumatic deicers on the elevator horn leading edges. Ice accumulation on one of the affected airplanes during flight testing in icing conditions prompted the proposed action. The actions specified in this

proposed AD are intended to prevent ice accumulation on the elevator horn, which could lead to loss of control of the airplane.

**DATES:** Comments must be received on or before March 24, 1995.

**ADDRESSES:** Service information that applies to the proposed AD may be obtained from the SOCATA Groupe AEROSPATIALE, Socata Product Support, Aeroport Tarbes-Ossun-Lourdes, B P 930, 65009 Tarbes Cedex, France; telephone 62.41.74.26; facsimile 62.41.74.32; or the Product Support Manager, U.S. AEROSPATIALE, 2701 Forum Drive, Grand Prairie, Texas 75053; telephone (214) 641-3614; facsimile (214) 641-3527. This information also may be examined at the Rules Docket at the address below. Send comments on the proposal in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-CE-26-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

**FOR FURTHER INFORMATION CONTACT:** Mr. Raymond A. Stoer, Program Officer, Brussels Aircraft Certification Office, FAA, Europe, Africa, and Middle East Office, c/o American Embassy, B-1000 Brussels, Belgium; telephone (322) 513.38.30; facsimile (322) 230.68.99; or Mr. Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 1201 Walnut Street, suite 900, Kansas City, Missouri 64106; telephone (816) 426-6934; facsimile (816) 426-2169.

#### **SUPPLEMENTARY INFORMATION:**

##### **Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that

summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

##### **Availability of NPRMs**

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94-CE-26-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

##### **Discussion**

The Direction Generale de L'Aviation Civile (DGAC), which is the airworthiness authority for France, recently notified the FAA that an unsafe condition may exist on certain Socata TBM 700 airplanes. The DGAC advises that, during flight testing of one of these airplanes in icing conditions, ice accumulation on the elevator horn was discovered. This condition could lead to loss of control of the airplane.

Socata has issued Technical Instruction of Modification No. OPT70 K020-30, dated February 1993, which specifies procedures for installing pneumatic deicers on the elevator horn leading edges of the affected airplanes. The DGAC classified this service bulletin as mandatory and issued DGAC AD 93-041(B), dated March 31, 1993, in order to assure the airworthiness of these airplanes in France.

This airplane model is manufactured in France and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the DGAC has kept the FAA informed of the situation described above.

The FAA has examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

Since this condition could exist or develop in other Socata TBM 700 airplanes of the same type design, the proposed AD would require installing pneumatic deicers on the elevator horn leading edges. The proposed action would be accomplished in accordance with the service information referenced above.

The FAA estimates that 20 airplanes in the U.S. registry would be affected by the proposed AD, that it would take approximately 25 workhours per airplane to accomplish the proposed action, and that the average labor rate is approximately \$60 an hour. Parts cost

\$3,710 per airplane. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$104,200. This figure is based upon the assumption that no affected airplane/operator has accomplished the proposed action. Socata has informed the FAA that it believes all affected airplane owners/operators have already accomplished the proposed installation. With this in mind, the proposed action would impose no cost impact upon U.S. operators.

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

##### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.

##### **The Proposed Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

##### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

**§ 39.13 [Amended]**

2. Section 39.13 is amended by adding a new AD to read as follows:

**Socata Groupe Aerospatiale:** Docket No. 94-CE-26-AD.

*Applicability:* TBM 700 airplanes, serial numbers 1 to 49, certificated in any category.

*Compliance:* Required within the next 100 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent ice accumulation on the elevator horn, which could lead to loss of control of the airplane, accomplish the following:

(a) Install pneumatic deicers on the elevator horn leading edges in accordance with Technical Instruction of Modification No. OPT70 K020-30, dated February 1993. This installation is referenced in Socata TBM Service Bulletin SB 70-020-30, dated February 1993.

(b) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(c) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Brussels Aircraft Certification Office (ACO), FAA, Europe, Africa, and Middle East Office, c/o American Embassy, B-1000 Brussels, Belgium. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Brussels ACO.

**Note:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Brussels ACO.

(d) All persons affected by this directive may obtain copies of the document referred to herein upon request to the SOCATA GROUPE AEROSPATIALE, Socata Product Support, Aeroport Tarbes-Ossun-Lourdes, B P 930, 65009 Tarbes Cedex, France; or the Product Support Manager, U.S. AEROSPATIALE, 2701 Forum Drive, Grand Prairie, Texas 75053; or may examine this document at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Issued in Kansas City, Missouri, on January 12, 1995.

**Barry D. Clements,**

*Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 95-1428 Filed 1-19-95; 8:45 am]

BILLING CODE 4910-13-U

**ACTION:** Supplemental notice of proposed rulemaking (NPRM); Reopening of the comment period.

**SUMMARY:** This document proposes to revise an earlier proposed airworthiness directive (AD) that proposed repetitively inspecting the wing forward spar fuselage attachment assembly for cracks or corrosion on certain Piper Aircraft Corporation (Piper) PA-25 series airplanes, and replacing or repairing any cracked or corroded part. Since issuance of the proposal, a second incident where the wing separated from one of the affected airplanes while in flight prompted the Federal Aviation Administration (FAA) to issue AD 93-21-12 (priority letter and subsequent Amendment 39-8763) to require a one-time inspection of the wing forward spar fuselage attachment assembly on these PA-25 series airplanes, with appropriate repair or replacement. The proposed action would retain this initial inspection, and propose a repetitive inspection. The actions specified by the proposed AD are intended to prevent possible in-flight separation of the wing from the airplane caused by a cracked or corroded wing forward spar fuselage attachment assembly.

**DATES:** Comments must be received on or before March 27, 1995.

**ADDRESSES:** Submit comments in triplicate to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 92-CE-63-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Information that relates to the proposed AD may be inspected at the Rules Docket at the address above.

**FOR FURTHER INFORMATION CONTACT:** Christina Marsh, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, Campus Building, 1701 Columbia Avenue, suite 2-160, College Park, Georgia 30337-2748; telephone (404) 305-7362; facsimile (404) 305-7348.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking

action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 92-CE-63-AD." The postcard will be date stamped and returned to the commenter.

**Availability of NPRMs**

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 92-CE-63-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

**Discussion**

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Piper PA-25 series airplanes was published in the **Federal Register** on September 8, 1993 (58 FR 47227). The action proposes to require repetitively inspecting the wing forward spar fuselage attachment assembly for cracks or corrosion, and replacing or repairing any cracked or corroded part.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the eight comments received from two commenters.

One commenter (referred to as Commenter No. 1 hereon) states that the wings must be removed from the fuselage in order to properly inspect the wing forward spar fuselage attachment assembly. The FAA concurs, and this was the intent of the proposal. The FAA has specified removal of the wings in the supplemental NPRM to eliminate any confusion regarding this matter.

Commenter No. 1 recommends a one-time inspection of the assembly, consisting of removing the wing forward spar fuselage attach fitting from the fuselage structure. The FAA does not concur with this recommendation. The

**14 CFR Part 39**

[Docket No. 92-CE-63-AD]

**Airworthiness Directives; Piper Aircraft Corporation PA-25 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.